

REMARKS

Applicant requests reconsideration and further examination of this application.

Applicant has canceled original Claims 1 – 15, 20 and 21, and added new Claims 22 – 26 in response to the Examiner's Action. Claims 16 – 19 are withdrawn.

The new claims recite that only gain of the radar's receiver is varied with at least two different corrections at different ranges. The new effect of Applicant's new method is to vary the polar plot of a radar antenna power pattern, and to vary the shape of an object detection zone of a radar. This new effect is dramatically depicted in Figures 6A – C (Patterns #1 - #3) according to embodiments of the invention, compared to Figure 4 and Figures 5A-C according to the prior art.

Respectfully, this new method and its new effects are neither disclosed nor suggested in the prior art, including the cited references.

U.S. Patent No. 3,810,178 (*Basard, et al.*) discloses a technique for range gain variation via a resistive step attenuator in two receiver paths, sum and difference. The only gain variation disclosed, however, is the typical $1/R^4$ correction.

U.S. Patent No. 4,370,652 (*Lucchi*) discloses a technique for adjusting the bandwidth of the radar in accordance with differing transmit radar signals. This reference does also disclose adjusting receiver gain during one time interval with a $1/R^2$ correction, and during another, later time interval with a $1/R^4$ correction (col 1, lines 37 – 40). However, importantly, this multiple correction technique is discussed within the context of "taking into account the change in effective gain resulting from bandwidth control" (col. 1, lines 36 and 37). Therefore, *Lucchi* requires both bandwidth control and multiple receiver gain correction.

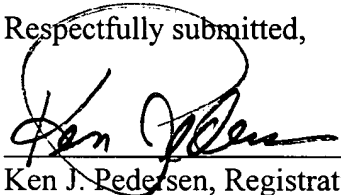
U.S. Patent No. 6,118,989 (*Abe, et al.*) discloses a technique of realizing variable gain in the RF path via controlled biasing of field effect transistors (FET's), especially for wireless

communication terminals, like cordless phones and cell phones. However, *Abe, et al.* does not discuss radar detection pattern shaping via only gain variation.

So, Applicant's claimed method is not disclosed nor suggested by the cited references, nor by any other prior art references of which Applicant is aware. Therefore, Applicant considers the new claims novel, unobvious, and patentable over the cited references.

Applicant now believes the application is in condition for allowance and respectfully requests the same.

Respectfully submitted,

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